

CA

PROCESSES AND PROPERTIES INDEX

Determination of nonmetallic inclusions in copper and chromium-copper steels. 1. I. Dalkhys. *Metallurg* 1938, No. 12, 151; *Khim. Referat. Zhur.* 1939, No. 6, 19. -- The Ukrainian Inst. of Metals developed chem. methods for the detn. of nonmetallic inclusions in the "DS" Cu steels (C 0.12-0.13, Cu 0.48-0.78%) and the "DS" Cr-Cu steels (C 0.20, Cu 0.50-0.70 and Cr 0.40-0.67%). The method of electrolytic substitution (soln. of the sample in a neutral HgCl₂ soln.) and the Cl method (action of Cl on the sample) were used. A combination anode-sublimate method was developed based on the treatment of the electrolytic residue of HgCl₂ in the presence of citric acid. The method was verified on C, Cu and Cr-Cu steels. The sepn. of the slag residue from the carbides makes it possible to decompose the carbides of Fe without losses of the little-stable inclusions. The sulfide inclusions, non-metallic inclusions in the C and some alloyed steels (Cu, Cr-Cu with a content of Cr up to 0.5%, etc.) can be investigated more easily and completely by this method than by other known methods. A direct treatment of the steel with a HgCl₂ soln. makes possible a faster detn. of the nonmetallic inclusions than the combination anode-sublimate method. The sublimate method is suitable only for steels contg. little Si and P. A table is given of the properties and occurrences of the nonmetallic inclusions in steels. W. R. Henn

ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION

130N1 170-8319A
147380 41

130N1 82-170
831110-1

130N1 82-170
831110-1

Effect of aging on the properties of Bessemer rail steel.
Dalkhes. *Novosti Tekhniki* 1938, No. 24, 11-12.—
Bessemer rail steel contg. C 0.43-0.45, Mn 0.75-0.95,
S 0.04-0.050 and P 0.070-0.080% was subjected to arti-
ficial aging and the mech. properties were detd. The mech.
properties as shown by rupture tests were not affected
noticeably. The impact toughness was found to depend
upon the temp. and duration of tempering. B. Z. K.
Tool steels. H. B. Chambers. *Can. Metals Mfr. Inds.*
2, 270-3(1939).—All tool steels are classified into 12
groups with these arranged according to the combination
of wear resistance and toughness, together with the condi-
tions which they are required to meet. The properties of
the steels in each group are indicated graphically for tough-
ness, wear resistance at room temp., wear resistance at
red hardness and movement in hardening. W. H. B.

[illegible]

DAYKES, I.I.

An efficient method. Nauka i zhizn' 23 no.5:48 '56. (MLRA 9:8)
(Metals--Heat treatment)

DAYKHES, I.I.

Sheet piling used in hydraulic structures. Nauka i zhizn' 23
no.7:51 J1 '56. (MIRA 9:9)
(Steel, Structural) (Sheet piling)

DAYKHES, I.I.

~~Self-fluxing agglomerate. Nauka i zhizn' 23 no.9:50 '56. (MLRA 9:10)~~

Self-fluxing agglomerate. Nauka i zhizn' 23 no.9:50 '56. (MLRA 9:10)
(Smelting)

DAYKIES, I.I.

Vacuum metallurgy. Nauka i zhizn' 24 no.3:53 Mr '57.

(MLBA 10:5)

(Metallurgy) (Vacuum)

DAYKHES, M.A., inzh.

Method of mounting the main engines with little deformation of the
foundation frame and the crankshaft. Sudostroenie 29 no.11:43-48
N '63. (MIRA 16:12)

DAYKHES, Maksim Timofeyevich

[Why healthy children lose their appetites] Pochemu zdorovye
deti mogut poteriat' appetit] Moskva, Uchpedgiz, 1957. 39 p.
(MIRA 13:7)
(Appetite)

DAYKHES, Maksim Timofeyevich

DAYKHES, Maksim Timofeyevich, dotsent; CHERKASOV, A.V., red.; LOKHMATYY,
Ye.G., tekhn.red.

[Prophylaxis and treatment of disturbances of the appetite in
children] Profilaktika i lechenie rasstroistv appetita u detei.
Kiev, Gos.med.isd-vo USSR, 1957. 69 p. (MIRA 11:1)
(APPETITE) (CHILDREN--DISEASES)

DAYKHES, M.T., dotsent

Further increasing the effectiveness of the work of consultants
in pediatric divisions of a polyclinical department. Pediatrics
39 no.1:22-23 '61. (MIRA 14:1)
(PEDIATRICS) (HOSPITALS—OUTPATIENT SERVICE)

DAYKHIN, M.Ya.; MAKATUN, V.N.; SILIN, V.A.; MODLIN, A.G.

New method for the control of the impurity of spinnerets.

Khim. volok. no.2:58-59 '65.

(MIRA 18:6)

1. Mogilevskiy zavod im. Kuybysheva.

DAYKHIN, M.Ye.; SILIN, V.A.; Kladnitskaya, L.P.

Device for simplified quality control of viscose. Khim. volok.
no.5:69-70 '65. (MIRA 18:10)

1. Mogilevskiy zavod iskusstvennogo volokna.

DAVISOV/II, V. A.

"Vasographic Study of the Condition of Kidney Vessels and Their Blood Accumulation Normally and in Hypertension." Cand Med Sci, Central Inst for the Advanced Training of Physicians, 2 Mar 54. Dissertation (Vechernyaya Moskva Moscow, 19 Feb 54)

SO: SUE 186, 19 Aug 1954

DAYKHOVSKIY, B.Ya., kand.med.nauk

Results of the introduction of minor mechanization in the
therapeutic department. Med.sestra 21 no.10:50-52 0 '62.

(MIRA 16:4)

1. Iz Moskovskoy gorodskoy klinicheskoy ordena Lenina bol'nitsy
imeni S.P.Botkina.

(HOSPITALS--FURNITURE, EQUIPMENT, ETC.)

LIST AND NO. ORDER		PROCESSING AND PROPERTIES INDEX	
<p>DAYKHOVSKIY, Ye. I.</p> <p>The effect of margarine diet on healthy and ill persons. Va. I. Dalkhovskii, D. Ya. Lindenlaten, M. I. Veksel and N. V. Moskova. <i>Moskovskoe Zdravoe Delo</i> 16, No. 3, 20-1 (1938).—Comparative feeding tests with table margarine, sweet butter and olive oil on healthy and ill persons with gastric, kidney and gall disorders are reported. No ill effect or difference in the physiol. action of the 3 diets during the test period of 1-10 days was observed. The total acidity and the content of free HCl in the gastric juices were about equal. In the food assimilation cow butter is slightly superior to margarine and this to olive oil. No disorder of the digestive and evacuation functions with margarine diet was shown. Margarine compounded with sunflower oil produced somewhat inferior results.</p> <p style="text-align: right;">Chas. Blanc</p>			
<p>ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>			

DAYKHOVSKIY, Ya. I.

PA 65/49T74

Medicine - Duodenum, Innervation Mar 49
Stomach, Innervation

"Review of L. Z. Frank-Kamenetskiy's, 'Motor
Innervation of the Stomach and Duodenum,'"
Prof Ya. I. Daykhovskiy, 1½ pp

"Klin Med" No 3

This branch of innervation was little studied
until now. Book gives results of surgical and
X-ray treatments and experiments, and new
methods of treating ulcers based on current
knowledge of the vegetative system. It will
interest surgeons and therapists.

65/49T74

DAYKHOVSKIY, Ya.I., prof. (Moskva)

Roman Al'bertovich Lurii; on the 15th anniversary of his death.
Kaz.med.zhur. 40 no.5:99-101 S-0 '59. (MIRA 13:7)
(LURIIA, ROMAN AL'BERTOVICH, 1874-1944)

L 5403-66 EWT(1)/EPF(n)-2/T/EDD(b)-3/EWA(h)/ETC(m) LJP(c) WW/AT

ACC NR: AP5927397

SOURCE CODE: UR/0181/65/007/011/3218/3226

AUTHOR: Gurevich, V. L.; Daykhtman, B. D.

ORG: Institute of Semiconductors, AN SSSR, Leningrad (Institut poluprovodnikov AN SSSR)

TITLE: Theory of sonic emission in piezoelectric semiconductors

SOURCE: Fizika tverdogo tela, v. 7, no. 11, 1965, 3218-3226

TOPIC TAGS: sound, semiconductor theory, piezoelectric effect

ABSTRACT: The paper is a direct continuation of a previous article by these authors (V. L. Gurevich, B. D. Daykhtman, ZhETF, 49, 960, 1965). A doped semiconductor with current carriers of a single sign assumed to be electrons is considered, or alternatively a photoconductor with a short hole lifetime, e. g. CdS. A theory is proposed to explain the mechanism responsible for generation of standing sound waves of low intensity in piezoelectric semiconductors in a steady electric field. Orig. art. has: 48 formulas.

SUB CODE: SS/

SUBM DATE: 03May65/

ORIG REF: 008/

OTH REF: 006

Card 1/1

Daykin, V.P.
USSR/Plant Physiology - General Problems.

I.

Abs Jour : Ref Zhur - Biol., No 18, 1958, 81959

Author : Daykin, V.P.

Inst : Sc. Research Institute of Agriculture, Extreme North

Title : Work on Plant Physiology in the Yakutsk ASSR

Orig Pub : Byul. nauchno-tekhn. inform. N.-I. in-ta s.-kh. Krayn.
Severa, 1957, No 3, 37-39

Abstract : Physiological research is devoted to the study of the water regimen, nourishment and metabolism of local plants. No substantial deviations in the water balance of Yakutian plants were noticed, except for a certain excess of water outflow over inflow. The soil temperature, which was 6-8°, prevented the synthesis of amino acids and hampered the utilization of N. The presence of K in the nutrient solution brought about a decrease

Card 1/2

USSR/Plant Physiology - General Problems.

I.

Abs Jour : Ref Zhur - Biol., No 18, 1958, 81959

of the number of amino acids in roots. -- B.E.
Kravtsova

Card 2/2

- 1 -

DAYLIDONENE, Y.S.

DAYLIDONENE, Ya.S. [Dailidoniene I.S.]

Epidemiology of tuberculosis among machin-tractor station and state farm workers in districts of Lithuania [with summary in French].
Probl.tub. 35 no.4:7-9 '57. (MIRA 10:8)

1. Iz litovskogo respublikanskogo tuberkuleznogo dispensera (glavnyy vrach Ya.S.Daylidonene, nauchnyy rukovoditel' - kandidat meditsinskikh nauk Yu.L.Gamperis)

(TUBERCULOSIS, epidemiol.

in Lithuania, among rural power agriculture & state farm workers (Rus))

(RURAL CONDITIONS

in Lithuania, tuberc. epidemiol. among power agriculture & state farm workers (Rus))

DAYLIS, I. L.

FD-1534

USSR/Medicine - Education

Card 1/1 : Pub 102-5/14

Author : *Daylis, I. L., Professor

Title : ~~On teaching "Organization of Public Health Service" in medical institutes~~
On teaching "Organization of Public Health Service" in medical institutes

Periodical : Sov. zdrav., 6, 26-28, Nov-Dec 1954

Abstract : A few suggestions are offered here as to how chairs in organization of public health service in the medical universities of the USSR can put their subject over more effectively. It is imperative that medical school students acquire a clear picture of organizational set up and theoretical basis of the Soviet public health system, its development and achievements. No doubt must exist as to superiority of Russian scientists in every branch of medicine; reactionary theories and practices existing in capitalist countries must be unmasked

Institution : (*Head) Chair of Organization of Public Health Service, Odessa Medical Institute

Submitted :

DAYLYUDENKO, K.A.

Experience in operating an automatic telegraph station ~~with~~ "Liman"
route-code commutation. Vest. sviazi 23 no.10:17-19 0 '63.
(MIRA 16:12)

1. Nachal'nik tsekha kodovogo avtomaticheskogo tranzita Moskovskogo
telegrafa.

DAYN, A.

Hidden potentialities for reducing construction costs. Fin. SSR
15 no.11:33-36 N°54. (MIRA 8:2)
(Construction industry--Costs)

DAYN, A.I., kandidat ekonomicheskikh nauk.

Ways of lowering the cost of non-mineral building materials. Mekh.
trud.rab. 9 no.2:23-25 F '55. (MIRA 8:4)
(Building materials)

DAYN, A.

Potentialities for reducing the cost of reinforced concrete units and
parts. Fin.SSSR 16 no.11:74-77 N '55. (MLRA 9:1)
(Concrete)

SOROKER, V.I., doktor tekhnicheskikh nauk; DAYN, A.I., kandidat ekonomicheskikh nauk; DOVZHIK, V.G., inzhener.

Screened crushed-stone concrete for reinforced concrete products plants.
Bet.1 shel.-bet. no.9:320-323 8 '56. (MLRA 9:10)
(Reinforced concrete)

DAYN, A.I., dotsent.

Further tasks in developing the nonmineral building materials
industry. Mekh.trud.rab. 10 no.5:30-32 My '56. (MLRA 9:8)
(Quarries and quarrying)

DAYN, A.

Important means for reducing building material costs. Fin. SSSR 17
no. 11:55-61 N '56. (MLRA 9:12)
(Building materials--Costs)

DAYE, A.

~~_____~~
Sources for decreasing production costs of rock products. Stroi.
mat.3 no.2:21-23 P '57. (MLBA 10:3)
(Quarries and quarrying)

DAYN, A.

DAYN, A., ekonomist

Development of an industrial base for construction in the Irkutsk
Economic Region. Stroimaterialy 3 no.11:22-23 N '57. (MIRA 10:12)
(Irkutsk Economic Region--Building materials industry)

DAYN, A.I., inzh.; BORISOV-BEHRIN, M.P., inzh.

Improve the production of rock, sand, and gravel used for
building materials. Mekh.trud.rab. 11 no.8:30-33 Ag '57.

(MIRA 10:11)

(Building materials)

BORISOV-BREBRIN, M.; DAYN, A.

Internal potentialities in the nonmetallic mineral industry. Fin.
SSSR 20 no.4:37-42 Ap '59. (MIRA 12:6)
(Building materials industry--Finance)

DAYN, A.I., dotsent; KACHEROVA, B.A., mladshiy nauchnyy sotrudnik;
~~BOLOTINA, N.B., starshiy inzh.~~; LOGINOV, P.F., inzh.

Ways to lower the net cost of stone, crushed stone, gravel, and
sand for construction. Sbor. trud. NIIZHelezobetona no.3:147-158
'60. (MIRA 15:2)
(Building stones) (Stone, Crushed) (Sand and gravel industry)

DAYN, A.I., kand.ekon.nauk

Potentials of enterprises of the Main Administration of the Building Materials Industry under the Executive Committee of the Moscow City Soviet of Working People's Deputies producing rock, sand and gravel for the construction industry. Sbor. trud. NII Zhelezobetona no.7:178-184 '62. (MIRA 16:1)
(Crushed stone industry) (Sand and gravel industry)

DAYN, E.I., kand. tekhn. nauk

Wastes of rock products are a powerful source for increasing
the production of aggregates. Stroi. mat. 9 no.10:10-11
0 '63. (MIRA 16:11)

DAYN, A.I., inzhener

Mobile enterprises for rock products industry. Stroi. mat. 10
no.10:23-24 0 '64. (MIRA 18:2)

DAYN, B. Ya.

see DAIN, B. Ya.

15(2)

AUTHORS:

Matveyev, M. A., Dayn, E. P.

SOV/72-59-11-4/13

TITLE:

The Effect of Powdered Refractory Charge Components Upon the Melting Temperature and Quality of Glass With a High Zirconium Content

PERIODICAL:

Steklo i keramika, 1959, Nr 11, pp 8-12 (USSR)

ABSTRACT:

The papers by I. D. Tykachinskiy, M. B. Romanovskiy, M. A. Matveyev, I. S. Koyfman, L. A. Grechanik, P. P. Budnikov, I. I. Nekrich (Footnote 1) were devoted to the investigation of soda-, soda-sulphate-, and borosilicate glasses. The present paper discusses the influence of dispersity of refractory stratum components, as well as entire charge, upon the melting temperature and quality of the glass Ts-18, which has the following composition: 62.5% SiO₂; 18% ZrO₂; 12% Na₂O; 2.5% K₂O; 5% CaO . O. K. Botvinkin, G. Ya. Ioffe, L. B. Krol', V. V. Tarasov, K. T. Bondarev (Footnote 2) report on its high chemical and thermal stability. The high refractory-oxide content accounts for the high melting point (1500-1520°) of this glass. The introduction of powdered sand and zirconium into the charge is said to constitute an effective

Card 1/2

The Effect of Powdered Refractory Charge Components SOV/72-59-11-4/16
Upon the Melting Temperature and Quality of Glass With a High Zirconium Content

method of lowering the melting point and improving the glass quality. This is described in detail. The degree of grinding of the material was determined by means of Tovarov's apparatus, and the grinding was carried out by the vibroplant Nr 3 (Fig 1). The fractional composition of the material was determined by means of a microscope and the apparatus designed by Figurovskiy. Tables 1 and 2 give a detailed description of the grinding of the sand, tables 3 and 4 of that of zirconium. Table 5 and figures 2-4 present the grinding of the charge under various conditions. Conclusions: The grinding of the entire zirconium-containing stratum is considered inexpedient, since soda and potash render the grinding of sand and zirconium difficult. Sand and zirconium should be added to the charge already ground. Suitably, the sand should be ground on the vibrating plant Nr 3. There are 4 figures, 5 tables, and 2 Soviet references.

Card 2/2

W DAIN, E.P.

L 53736-65 EPF(c)/EPR/EPA(s)-2/ENT(m)/EWP(1)/EWP(b)/EWP(e) Pq-4/Pr-4/Ps-4/Pt-7
WW/WH

ACCESSION NR: AP5015562

UR/0286/65/000/008/0119/019
666.189.211 62
8

AUTHOR: Shkol'nikov, Ya. A.; Polik, B. M.; Karakhanidi, N. G.; Ivanov, P. K.; Rober, F. I.; Ulybyshev, V. V.; Alen'kin, A. T.; Bugrova, N. N.; Simakov, D. P.; Shchipin, I. Ye.; Gur'yeva, Yu. N.; Yefimova, M. I.; Nechayeva, Ye. S.; Yesilkina, K. M.; Ivanova, A. I.; Dayn, E. P.; Nabatov, V. G.; Novoyevskaya, Ye. A.; Kukin, Ye. B.; Balashov, V. N.; Gamza, L. B.

TITLE: Glass for glass fibers. 6 Class 32, No. 170369 15

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 8, 1965, 119

TOPIC TAGS: glass, glass fiber

ABSTRACT: An Author Certificate has been issued for a glass suitable for making glass fibers. To increase chemical durability, to prevent corrosion of alloys of aluminum and other light metals, and to improve processability, the glass is formulated to contain: 58-63% SiO₂, 2-4% B₂O₃, 6-8% Al₂O₃, 0.5-1.5% F₂O₃, 4-6% ZrO₂, 6-8% CaO, 12-13% Na₂O, and 1.5-2% K₂O. [BM]

ASSOCIATION: none

Card 1/2

15(2)

AUTHORS:

Sivchikova, M. G., Dayn, F. L.

SOV/72-59-7-8/19

TITLE:

Glazes for Faience Free From Boron and Lead (Bezbornyye bessvintsovyye glazuri dlya fayansa)

PERIODICAL:

Steklo i keramika, 1959, Nr 7, pp 22-26 (USSR)

ABSTRACT:

Yu. G. Shteynberg and L. V. Romanchuk (GIKI) elaborated a boron-strontium-glaze free from lead for faience with a burning temperature of from 1040 to 1200° which was introduced beside others in the Konakovo Faience Works imeni Kalinina and in the Budyanskiy Faience Works in the Ukraine. The same authors work at a glaze free from boron with a burning temperature of from 1100 to 1250° by using zinc oxide and lithium compounds as melt. I. Kalzing and F. Viveger used fluorides and zinc oxide for this purpose. The authors of this paper used fluorides, zinc oxide, strontium compounds and titanium dioxide as boron substitute. As initial material of their investigations of glazes free from boron and lead yelisseyevskiy pegmatite, quartz, prosyanovskiy kaolin, belgorodskiy chalk, dolomite, zinc oxide, strontium carbonate, titanium dioxide and fluorides were used. The chemical composition of the materials is given in table 1. As basis they took the boron-strontium-faience glaze being used in

Card 1/2

Glazes for Faience Free From Boron and Lead

SOV/72-59-7-8/19

the works of the UkrSSR and the molecular formula of them is given. The layer was fritted at a temperature of from 1300 to 1320° in the electric laboratory furnace. The compositions of the frits are given in tables 2 and 3. The quality of the glazes may be seen from table 4. In the figure the thermal expansion of the ceramic bodies of some types of glazes is represented. The glaze hardness was determined by means of the apparatus PMT-3. The chemical stability of the frits and glazes was determined according to the method of the Glass Institute. The crystallizability of the glazes was investigated by means of the polythermal method in a gradient furnace whereby the study of L. M. Blyumen is mentioned. The microstructure of the glazes was investigated by means of ground sections by chief engineer O. F. Yarnak (Footnote 1). Conclusions. On the basis of fluorine compounds glazes free from boron and lead were obtained. Their quality was found not to be inferior to boron glazes for faience. The molecular formula of these glazes is given. The new glazes are tested under operational conditions and can be recommended for glazing faience household products. There are 1 figure and 4 tables.

Card 2/2

SEN', Z.P.; SIVCHIKOVA, M.G.; LUCHKA, M.Kh.; BELYAKOVA, I.N.;
YARMAK, O.F.; DAYN, F.L.

Possibility of lowering the temperature of porcelain firing
and of its replacement in drying under high temperatures.
Stek.1 ker. 19 no.9:21-24 S '62. (MIRA 15:9)
(Porcelain)

SIVCHIKOVA, M.G. [Syvchikova, M.H.], kand. tekhn. nauk; DANI, F.L.
STESINA, A.G. [Stesina, A.H.].

Physicochemical properties of household porcelain produced
by the factories of the Kiev Economic Council. Leh. prom.
no.4:80-83 G-D '64 (MIRA 18:1)

SIVCHIKOVA, M.G. [Syvchykova, M.H.], kand. tekhn. nauk; DAYN, F.L.;
GULAY, O.S. [Hulai, O.S.]

Improving the quality of maiolica goods. Leh. prom. no.1:21-22
Ja-Mr '65. (MIRA 18:4)

SIVCHIKOVA, M.G. [Syvchykova, M.H.], kand. tekhn. nauk; DAYN, F.L.;
GULAY, O.S. [Hulai, O.S.]

Effect of the glaze coating on porcelain whiteness. Izh. prom.
no.4:22-27 O-D '65. (MIRA 19:1)

SIVCHIKOVA, M.G. [Syvchykova, M.M.], kand.tekhn.nauk; DAYN, F.L.;
KAGANOVA, I.V. [Kahanova, I.V.]

Color glazes for the decoration of fine stoneware. Leh.prom.
no.1:60-63 Ja-Mr '64. (MIRA 19:1)

DAYNEKO, Filipp Petrovich [Daineka, P.P.]; UKSUSOV, D. [Uksusau, D.],
red.; SLAVIANIN, I., tekhn.red.

[Our most important potential] Nash halouny rezerv. Minsk,
Dziarzh.vyd-va BSSR, Red.masava-palit.lit-ry, 1960. 40 p.
(MIRA 14:3)

I. Sekretar' Mostovskogo rayonnogo komiteta Kommunisticheskoy
partii Belorussii (for Dayneko).

(Mosty District--Agricultural administration)

MEDVEDEVA, Ye. A., kand. med. nauk; DAYNEKO, L. N., mlad. nauch. sotr;
ZHUKOV, V. N., mlad. nauch. sotr.; BELYAVTSEVA, I. S., mlad.
nauch. sotr.

Significance of the luminescence method in the diagnosis of some
dermatoses. Vest. dermat. i ven. no.6:17-20 '61. (MIRA 15:4)

1. Iz Ufinskogo kozhno-venerologicheskogo instituta (dir. -
starshiy nauchnyy sotrudnik P. N. Shishkin; nauchnyy rukovoditel' -
starshiy nauchnyy sotrudnik G. E. Shinskiy)

(SKIN—DISEASES) (LUMINESCENCE)

DAYNEKO, Z. N.

Wood hydrolysis in tanks with horizontal percolation. T. A. Belyaevskii, P. V. Turor, and Z. N. Dalneko (Hydrolysis Plant, Bobruisk). *Gidroliz i Lezhim. Prom.* 8, No. 4, 3-8 (1955).—Exptl. work is reported on the hydrolytic process in reaction vessels equipped with perforated liquor feed lines in vertical position and products removing pipes running parallel to them. During the operation the pressure is set at the equil. temp. of the hydrolysis. The lignous residue is, therefore, less compressed and removed easier. The hydrolytic products are obtained in purer form, the reaction time is shorter, and less corrosion is experienced than with the equipment of older design. Two variations in the setup of the installation have been adopted. In one the liquor is fed through a central line and is directed toward 6 pipes around the inside wall. In the second modification the liquor is charged through a pipe at one side of the wall and its current is directed through the reaction mass toward the other side of the tank where 3 or 5 pipes are located for removal of the reaction products. The efficiency of the operation depends on a light overcharge of the liquor and a proper coordination of the reaction variables (time, temp., and concn. of the cooling acid).

T. Jurecic

(2)

DAYNEKO, Z.N.; LUK'YANOV, M.A.; LIVSHITS, N.Ya.

Return valves made from seamless steel pipes for steam lines.
Gidroliz. i lesokhim. prom. 9 no.7:24 '56. (MIRA 12:3)

1. Bobruyskiy godroliznyy zavod.
(Valves)

DAYNEKO, Z.N.

DAYNEKO, Z.N.; GORELIK, B.A.; BEL'KOVA, Ye.A.; YARESHCHENKO, A.M.

~~Lighten~~ the work of the chief cooker operator. Gidroliz. i lesokhim. prom.
10 no.8:21-22 '57. (MIRA 10:12)

1. Bobruyskiy gidroliznyy zavod.
(Hydrolysis)

GESHTOVT, Yu.N., aspirant; MAKAROV, V.S.; YEPANESHENKOV, I.B.;
DAYNICHENKO, G.S., aspirant; GRYAZEV, I.I.

Economic effectiveness of the use of herbicides. Zashch.
rast. ot vred. i bol. 9 no.2:9-11, 32 '64.

(MIRA 17:6)

1. Kishinevskiy sel'skokhozyaystvennyy institut (for Daynichenko).
2. Nachal'nik Ul'yahovskoy stantsii zashchity rasteniy (for Grazev).
3. Severnyy filial Kazakhskogo instituta zashchity rasteniy, Kokchetav (for Geshtovt).
4. Starshiy agronom po zashchite rasteniy Nerchinskogo proizvodstvennogo upravleniya, Chitinskaya obl. (for Makrov).
5. Glavnyy agronom po zashchite rasteniy Gorodetskogo proizvodstvennogo upravleniya, Gor'kovskaya obl. (for Yepaneshenkov).

KAL'FA, S.F., prof.; DAYNOVSKAYA, S.B.

Myopia and toxoplasmosis. Oft. zhur. 16 no.8:455-460 '61.

(MIRA 15:4)

1. Iz kafedry glaznykh bolezney (zav. - prof. S.F.Kal'fa) Odesskogo
meditsinskogo instituta imeni Pirogova.

(MYOPIA)

(TOXOPLASMOSIS)

DAYNOVSKIY, Anatoliy Boleslavovich; KUKLIN, Metislav Nikolayovich;
DITKOVSKIY, A.S., red.; SIDEL'NIKOVA, L.A., red.izd-va; BACHU-
RINA, A.M., tekhn.red.

[Over-all utilization of wood in industry] Kompleksnoe ispol'-
zovanie drevesiny v promyshlennosti. Moskva, Goslesbumizdat,
1959. 78 p. (MIRA 13:2)
(Wood-using industries)

1. DAYNOVSKIY, A. V., Candidate
2. USSR (600)
4. Lumber - Transportation
7. On the economic efficiency of transporting logs in tree lengths, Les. prom., 13, no.5, 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

DAYNYAK, A.N.

KHACHATUR'YAN, G.Kh.; DAYNYAK, A.N.; REZNIKOV, Ye.K.

Penicillin dermatitis. Sovet. med. 16 no. 6:11-13 June 1952. (GLML 22:4)

1. Of the Clinic for Skin Diseases (Director -- Prof. F. M. Grincher, Honored Worker in Science), Second Moscow Medical Institute imeni I. V. Stalin and of the 8th Venereological Dispensary.

DAYMYAK, L. B.

"Clinical Observation, Prophylaxis, and Treatment of Common Forms of Nonspecific Acute Laryngitis." Cand Med Sci, Second Moscow State Medical Inst imeni I. V. Stalin, 20 Sep 54. (VM, 1 Sep 54)

SO: Sum 432, 29 Mar 55

DAYNYAK, L.B.

DAYNYAK, L.B., aspirant

Result of streptomycin therapy in edematous and phlegmous
laryngitis. Vest. oto-rin. 16 no.3:56-60 My-Je '54. (MLRA 7:7)

1. Iz kliniki bolezney ^{Ear (throat) nose} ucha, gorla i nosa (dir. deystvitel'nyy
chlen Akademii meditsinskikh nauk SSSR prof. B.S.Preobrazhenskiy)
II Moskovskogo meditsinskogo instituta imeni I.V.Stalina.

(LARYNGITIS, therapy,

*streptomycin)

(STREPTOMYCIN, therapeutic use,

*laryngitis)

DAYNYAK, L.B., kandidat meditsinskikh nauk

Etiology, clinical aspects and prevention of edematous infiltration and phlegmonous (abscessing) laryngitis. Vest.oto-rin
17 no.4:30-35 J1-Ag '55. (MLRA 8:10)

1. Iz kliniki bolezney ucha, gorla, nosa (dir.-deystvitel'-
nyy chlen Akademii meditsinskikh nauk SSSR prof. B.S. Preo-
brashenskiy) lechebnogo fakul'teta II Moskovskogo meditsinskogo
instituta imeni I.V.Stalina.

(LARYNGITIS,

edematous, infiltrable & phlegmonous)

DAYNYAK, L.B., kand.med.nauk, NAZAROVA, G.F., kand.med.nauk

First plenary session of the All-Russian Medical Society of
Otolaryngologists. Vest.oto.-rin. 20 no.3:120-123 My-Je '58
(MIRA 11:6)

(OTORHINOLARYNGOLOGY)

DAYNYAK, L.B., kand. med. nauk.

Ethyzine in the treatment of vasomotor and allergic rhinitis. Vest. otorin.
21 no.2:38-41 Mr-Apr '59. (MIRA 12:4)

1. Iz kliniki bolezney ukha, gorla i nosa (dir. - prof. B.S. Preobrazhenskiy)
lechebnogo fakul'teta II Moskovskogo meditsinskogo instituta.

(HAY FEVER, ther.

10-(2-dicethylaminoethyl)-phenothiazine (Rus))

(PHENOTHIAZINE, rel. cpds.

10-(2-dimethylaminecthyl)-phenothiazine in hay fever (Rus))

DAYNYAK, L.B., kand.med.nauk; MEL'NIKOVA, N.S., inzh.

New method for determining the patency of the nasal passages.
Vest.otorin. 22 no.2:90-93 Mr-Apr '60. (MIRA 13:12)

1. Iz kliniki bolezney ukha, gorla i nosa (zav. - prof.B.S. Preobrazhenskiy) lechebnogo fakul'teta II Moskovskogo meditsinskogo instituta i laboratorii gazovykh meditsinskikh priborov i apparatov (rukovoditel' - kand.tekhn.nauk A.S.Perel'mutr) Vsesoyuznogo nauchno-issledovatel'skogo instituta meditsinskogo instrumentariya i oborudovaniya.

(NOSE)

(OTORHINOLARYNGOLOGY equip. & supplies)

DAYNYAK, L. B., kand. med. nauk

Use of prednisone in the treatment of vasomotor and allergic
rhinitis. Vest. otorin. no.5:37-42 '61. (MIRA 14:12)

1. Iz kliniki bolezney ukha, gorla i nosa (zav. - prof. B. S.
Preobrazhenskiy) II Moskovskogo meditsinskogo instituta imeni
N. I. Pirogova.

(NOSE-DISEASES) (PREGNADIENETRIONE)

DAYNYAK, L.B., kand.med.nauk

Mechanism of the action of acupuncture and its effectiveness
in treating various forms of vasomotor rhinitis. Vest.otorin.
no.5:16-21 '62. (MIRA 15:9)

1. Iz kafedry bolezney ukha, nosa i ~~gorla~~ (zav. - prof. B.S.
Preobrazhenskiy) lechebnogo fakul'teta II Moskovskogo meditsin-
skogo instituta imeni N.I. Pirogova.
(NOSE--DISEASES) (ACUPUNCTURE)

DAYNYAK, L.B., kand. med. nauk

Clinical aspects and prevention of vasomotor rhinitis. Sov.
med. 26 no.11:109-113 N°62 (MIRA 17:3)

1. Iz kliniki bolezney ukha, nosa i gorla (dir. - deystvitel'-
nyy chlen AMN SSSR prof. B.S. Preobrazhenskiy) II Moskovskogo
meditsinskogo instituta imeni N.I.Pirogova.

DAYNYAK, L.B., kand.med. nauk

Vascular reactivity in patients with vasomotor rhinitis.
Vest. otorin. no.1:42-50 '63. (MIRA 16:9)

1. Iz klinicheskoy bolezney ucha, nosa i gorla (direktor- prof.
B.S.Preobrazhenskiy) II Moskovskogo meditsinskogo instituta
imeni N.I.Pirogova.
(NOSE—DISEASES) (NERVOUS SYSTEM, VASOMOTOR—DISEASES)

PETROCHENKO, P.F.; SHAPIRO, I.I.; LUR'YE, G.B., prof.; DAYON, A.Ye., inzh.; ZAKHARKIN, V.I., inzh.; MAYOROVA, A.V., inzh.; FELIKSON, N.I., inzh.; FILIPPOVA, L.A., inzh.; GVOZDEVA, A.N., inzh.; MODEL', B.I., tekhn.red.

[General norms for cutting conditions and time in the machinery industry for technical normalization of machining on grinding machines; large-lot and mass production] Obshchemshinostroitel'nye normativy rezhimov rezaniya i vremeni dlia tekhnicheskogo normirovaniya rabot na shlifoval'nykh stankakh; krupnoseriinoe i massovoe proizvodstvo. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroitel'nykh mashin, 1959. 359 p. (MIRA 13:1)

1. Moscow. Nauchno-issledovatel'skiy inetitut truda. TSentral'noye byuro promyshlennykh normativov po trudu. 2. Glavnyy inzhener TSentral'nogo byuro promyshlennykh normativov po trudu pri Nauchno-issledovatel'skom institute truda (for Petrochenko). 3. Zaveduyushchiy otdelom mashinostroyeniya TSentral'nogo byuro promyshlennykh normativov po trudu pri Nauchno-issled.institute truda (for Shapiro). 4. Sotrudniki TSentral'nogo byuro promyshlennykh normativov po trudu pri Nauchno-issledovatel'skom institute truda (for Dayon, Zakharkin, Mayorova, Felikson, Filippova, Gvozdeva).

(Grinding and polishing)

PETROCHENKO, P.F.; SHAPIRO, I.I.; LUR'YE, G.B., prof.; DAYON, A.Ye., inzh.;
ZAKHARKIN, V.I.; inzh.; MAYOROVA, A.V., inzh.; FELIKSON, N.I., inzh.;
FILIPPOVA, L.A., inzh.; GVOZDEVA, A.N., inzh.; DOBRITSYNA, R.I.,
tekhn.red.

[General engineering time norms for the technical standardization of machining processes on grinding machines; small-lot and piece production] Obshchemashinostroitel'nye normativy vremeni dlia tekhnicheskogo normirovaniia rabot na shlifoval'nykh stankakh; melkoseriinoe i edinichnoe proizvodstvo. Moskva, Gos.nauchno-tekhn. izd-vo mashinostroit.lit-ry, 1960. 38 p.

(MIRA 14:1)

1. Moscow. Nauchno-issledovatel'skiy institut truda. TSentral'noye byuro promyshlennykh normativov po trudu. 2. Glavnyy inzhener TSentral'nogo byuro promyshlennykh normativov po trudu pri Nauchno-issledovatel'skom institute truda (for Petrochenko). 3. Zaveduyushchiy otdelom mashinostroyeniya TSentral'nogo byuro promyshlennykh normativov po trudu pri Nauchno-issledovatel'skom institute truda (for Shapiro). 4. TSentral'noye byuro promyshlennykh normativov po trudu pri Nauchno-issledovatel'skom institute truda (for Dayon, Zakharkin, Mayorova, Felikson, Filippova, Gvozdeva).
(Grinding and polishing)

VENGLINSKIY, V.V.; DENISENKO, K.V.; SOTSKOV, A.A.; SHPIGEL', A.M.;
GORDON, Kh.I., inzh., retsenzent; SHAKHNAZAROV, M.M.,
retsenzent; DAYON, A.Ye., inzh., red.; PETUKHOVA, G.N., red.
izd-va; TIKHANOV, A.Ya., tekhn. red.

[Establishing technical norms in the instrument industry]
Tekhnicheskoe normirovanie truda v priborostroenii; spra-
vochnoe posobie. Moskva, Mashgiz, 1962. 511 p.

(MIRA 15:9)

(Instrument industry—Production standards)

DAYON, M. [15]

USSR/Nuclear Physics - Cosmic Radiation
Nuclear Physics - Particles

Jun 48

"Spectrum of Varitron Mass at 3,250 Meters Above Sea Level," A. Alikhanyan, Corr Mem, Acad Sci USSR; A. Vaysenberg, V. Kharitonov, M. Dayon, Inst of Phys Problems, Acad Sci USSR, and Phys Inst, Acad Sci Armenian SSR, 4 pp

"Dok Ak Nauk SSSR" Vol LX, No 9

Investigation on subject began in 1946 in Cosmic Ray Laboratory on Mount Alages. Results published in various journals, including Vest Ak Nauk SSSR, No 5, 1947. (See Abstract 54169). Authors discovered particles intermediate between mesotrons and protons, calling them varitrons because they can be either positive or negative. Work was resumed in 1947. Describes improvements in apparatus. Tabulates masses and charges of particles observed. Graphs show spectra of particles which passed through 0.8-cm lead sheet but were absorbed in 1.05 cm lead sheet. Consist of a series of well defined maxima and vious hypotheses on ionization of particles. Submitted 29 Apr 48.

PA 6/49T91

ALIKHANYAN, A. I.; VAYSENBERG, A.; DAION, M.; KHARIONOV, V.; KONSTANTINOV, A.
DAYON, M.

"Varitrons in rigid component of cosmic rays," Reports of the AS USSR (New Series),
Vol. 61, No. 1, 1948.

Previous article in Dokl. AN SSSR, 60, No.9, described spectra of varitron
masses obtained by examination of trajectories of particles absorbed in lead filters
installed above a series of counters. Present article discusses data obtained on the
spectrum of the hard component. Submitted 18 May 1948

8/49T105

DAYON, M. I.

USSR/Nuclear Physics - Varitrons
Nuclear Physics - Cosmic Rays

Aug 49

"Generation of Protons and Varitrons by the Neutral Component of Cosmic Rays," A. I. Alikhanyan, M. I. Dayon, V. M. Kharitonov, Inst of Phys Problems, Acad Sci USSR, Phys Inst, Acad Sci Armenian SSR, 8 pp

"Zhur Eksper i Teoret Fiz" Vol XIX, No 8, pp 739-48.

Observed generation of charged particles in lead caused by the neutral component at 3,250 meters. Magnetic analysis of the particles showed them to be protons and varitrons. Theorized that the protons appeared as a result of exchange of charge which the fast neutron undergoes in interaction with nuclear particles. Submitted 20 Apr 49.

PA 61/49T80

DAYON, M. I.

USSR/Nuclear Physics - Cosmic Rays Varitrons

Oct 49

"Existence of Light Varitrons," A. I. Alikhanyan, A. A. Konstantinov, V. M. Kharitonov, M. I. Dayon, Phys Inst, Acad Sci Armenian SSR, Inst Phys Problem Acad Sci USSR, 11 pp

"Zhur Eksper i Teoret Fiz" Vol XIX, No 10, pp 857-67.

Studied pulse (momentum) spectrum of cosmic particles in the interval 30-80 MeV/c. Showed that particles exist in this pulse (momentum) interval which have masses of 150, 100, 80, and, apparently, 50 times the electron mass. Submitted 28 Jun 49.

PA 150T59

DAION, M. I.

PA 27/49184

USSR/Nuclear Physics - Geiger Counters Jan 49
Nuclear Physics - Elementary Particles

"Self-Damping Geiger-Muller Counters With Low
Probability of Effectiveness," M. I. Daion, 4 pp

"Dok Ak Nauk SSSR" Vol LXIV, No 3

Effectiveness α of a given counter denotes probability
of its registering relativistic particles. A tele-
scope from k counters, each of which have a probability
of effectiveness α , will register relativistic
particles with the probability α^k , and particles
with a times greater ionization ability than
relativistic ones, with the probability $n\alpha^k$ (with n

27/49184

USSR/Nuclear Physics - Geiger Counters (Contd) Jan 49

small compared to 1). Counters made were used to
study ionizing ability of various. Submitted
6 Aug 48.

27/49184

DAYON, M. [1.]

USSR/Mathematics - Magnetic Spectrometer

1 Sep 51

"Concerning the New Magnetic Spectrometer," A. Alikhanyan, Corr Mem, Acad Sci USSR, A. Dadayan, E. Shostakovich, G. Akopyan, M. Dayon, Phys Inst, Acad Sci Armenian SSR

"Dok Ak Nauk SSSR" Vol LXXX, No 1, pp 37-40

Describes the new magnetic spectrometer of large resolving power, set up at an altitude of 3,200 meters above sea level and intended for measuring the spectra of pulses (moments) and masses of particles composing cosmic rays. The central part of this device is the electromagnet weighing 76 tons, in the gap of which has been erected a series of small-diam counters that permit one to det the coordinates of the particles in space. The spectra of protons obtained show that the new magnetic spectrograph actually possesses large resolving power and enables one to distinguish particles with masses less than 1,000 m_p of the proton. The results obtained indicate that the distribution trail of protons practically disappears for values of masses equal to 1,400 m_p (the mass of the proton). During the entire time of the measurement on pulses (moments), never once was a trajectory of particles of neg sign recorded or observed in the filters. Submitted 1 Jul 51.

PA 221765

USSR/Nuclear Physics - Cosmic Neutrons 21 Oct 52

ET 489
2248
"Generation of Protons and pi-Mesons by Cosmic Neutrons," M. I. Dayon

PA "Dok Ak Nauk SSSR" Vol 86, No 6, pp 1093-1096

Discusses case where registration of charged particles in the mass spectroscopy (3,250 m elevation, 6,200 Gauss, 9 cm of lead; A. Alkhanyan et alii, "Dok Ak Nauk SSSR" Vol 80, No 1, 37, 1951) is not accompanied by indication of the 0 series of neon counters (i.e., those on sides of lead block), which suggested subject generation. Rules out the

23W89

possibility of the ineffectiveness of the counters. Acknowledges aid of A. I. Alkhanyan, A. Dadayan, G. A. Marikyan, Shostakovich, and Avdomyan. Submitted by Acad A. I. Alkhanov 23 Aug 52.

(PA 56 no. 671:7779 '53)

23W89

DAYON, M. I.

DAYON, M-I.

0558 0

537.591.8
/5712. Protions and mesons produced by ~~gamma-ray~~
mesons. N. I. DAYON. Izv. Akad. Nauk SSSR (Ser.
fiz.) 17, No. 1, 92-3 (1953) In Russian.
The particles produced in a Pb screen 9 cm thick
were studied at 3240 m. The author deduces, among
other conclusions, that mainly negative mesons are
produced in Pb by neutrons. [Transcription of
Watahishin's summary (see Abstr. 5747 above), which
contains a diagram of the apparatus used and a
histogram of the results.]

Fizicheskiy institut imeni P. N. Lebedeva Akademii nauk SSSR.

Dayon, M. I.

USSR/Physics - T-particles

Card 1/1 Pub. 22 - 6/40

Authors : Alikhonyan, A. I., member correspondent of the Acad. of Scs. of USSR;
Dayon, M. I.; Shostakovich, N. V.; Kirillov-Ugoyumov, V. G. and Deryagin, B. N.
Title : ~~Unstable~~ charged particles heavier than protons.

Periodical : Dok. AN SSSR 99/3, 361-364, Nov 21, 1954

Abstract : Four cases of charges particles heavier than protons, observed in Wilson's camera, are described. These particles were designated T-particles and their mass, sign, durations and energy were estimated. They are considered as being particles of a decomposition process at the end of which the formation of π -mesons was observed. A scheme of the decomposition process can be written as follows: $T \rightarrow n + \pi^0 (\pi^0) + Q$, where Q is energy carried away by the neutron and the meson, from the T-particle when the latter is in a state of rest. Six references; 2-USSR and 4-Foreign (1953-1954). Table; illustrations.

Institutions: Physical Institute of the Acad. of Scs. of the Arm SSR
Physical Institute of the Acad. of Scs. of the USSR

Submitted :

DAYON, M. I.

USSR/ Physics - Magnetic experiments

Card 1/2 Pub. 22 - 13/54

Authors : Dayon, M. I.

Title : ~~XXXXXXXXXXXX~~
Determination of the mass of charged particles by their dispersion and their residual ruin in the plates located inside of a Wilson camera.

Periodical : Dok. AN SSSR 100/3, 453-454, Jan. 21, 1954

Abstract : A method is described for checking the applicability of the practical formula (given below) for determination of the mass mesons and protons with the help of a magnetic spectrometer. The magnetic spectrometer (constructed by Alakhanyan and Alikhanov) was connected with a large rectangular Wilson camera with 7 brass plates. The formula was worked out by Olbert, Annis and Bridge, it stands as follows:

Institution : Acad. of Scs., USSR, P. N. Lebedev Physical Institute

Presented by: Academician A. I. Alikhanov, October 6, 1954

Periodical : Dok. AN SSSR 100/3. 453-454, Jan. 21, 1954

Card 2/2 : Pub. 22 - 13/54

Abstract : $\left[\frac{1}{n} \sum_{i=1}^n \phi_i^2 R_i^{1-x} \right]^{1/2} = \left[4\pi r_c^2 N \frac{z^2}{A} G t \right]^{1/2} [A_z m_e c^2]^x \left(\frac{m_e}{m} \right)^{1-x}$

Three references: 1 USSR and 2 USA (1952-1953). Graphs.

Application of the method of remaining trajectory scattering
to the determination of the particle mass in a Wilson
chamber with plates. M. I. Daloz. Bull. Acad. Sci.
U.S.S.R., Phys. Ser. 6, 624-6 (1955) (English translation). —
See C.A. 50 7817g. — B. M. R. See

PM

1 / RMZ

✓ Evaluation by photography of the ionizing effect of particles
in a Wilson chamber. V. M. Fedorov, O. I. Merzon, and
M. I. Daisov. *Dokl. Akad. Sci. U.S.S.R., Phys. Ser.* 6,
678-80 (1955) (English translation).—See *C.A.* 50, 7013f.
D. M. H. *Sci*

RMZ

DAYON, M.I.

Using the residual range--scattering method for determining particle masses in metal-plate cloud chambers. Izv.AN SSSR,Ser.fiz.19 no.6: 697-699 N-D '55. (MIRA 9:4)

1.Fizicheskii institut imeni P.N.Lebedeva Akademii nauk SSSR.
(Cosmic rays) (Nuclear physics)

FEDOROV, V.M.; MERZON, G.I.; DAYON, M.I.

Photometric method for determining the ionizing capacity of particles
in the cloud chamber. Izv. AN SSSR.Ser.fiz.19 no.6:750-752 N-D '55.
(MIRA 9:4)

1.Fizicheskiy institut imeni P.N.Lebedeva Akademii nauk SSSR.
(Cosmic rays) (Nuclear physics)

DAYON, M.I.; FEDOROV, V.M.

~~Large rectangular Wilson chamber with bilateral enlargement. Zhur.~~

Large rectangular Wilson chamber with bilateral enlargement. Zhur.
tekh. fiz. 25 no.5:771-778 My '55. (MIRA 8:7)

(Cloud chamber)

DAYON, M. [1]

"Heavy unstable particles" (Problemy sovremennoi fiziki. no.4,
1955) Reviewed by M.Daion. Usp.fiz.nauk 56 no.3:465-467 J1'55.
(Particles, Elementary) (MIRA 8:10)

DAYON, M. I.

USSR/ Physics - Cosmic ray radiation

Card 1/1 Pub. 22 - 10/51

Authors : Dayon, M. I.

Title : On stable particles with masses larger than protons in cosmic radiation at 3,250 miles above sea level

Periodical : Dok. AN SSSR 101/5, 821-823, Apr. 11, 1955

Abstract : Experiments with cosmic ray particles heavier than a proton, observed at an elevation of 3,250 miles above sea level, are described. The experiments were conducted with the help of a magnetic mass spectrometer in which the catching device was replaced with a large rectangular Wilson chamber. The experiments were intended to prove the existence of such particles in cosmic rays. Three USSR references (1952-1953). Diagrams.

Institution : Acad. of Sc., USSR, P. N. Lebedev's Institute of Physics

Presented by : Academician A. I. Alikhanov, Jan. 18, 1955

Dayon, M. I.

INSTRUMENTATION: SPECTROMETERS

"The Alikhanyan-Alikhanov Magnetic Spectrometer in Conjunction With a Large Rectangular Cloud Chamber", by M.I. Dayon, V.M. Fedorov, and G.I. Merzon, and N.V. Shostakovich, Physics Institute imeni P.N. Lebedev, Academy of Sciences USSR, Pribery i Tekhnika Eksperimenta, No 1, January-February 1957, pp 3-10.

Description of a mass spectrometer, constructed in 1953, in which a large cloud chamber with plates replaces the system of counters, separated by absorber layers, previously placed under the poles of the magnet. The first to employ such a combination of a mass spectrometer with a chamber was A.I. Alikhanyan and his associates in 1952. The possibility of a detailed study of the behavior of a particle after it leaves the magnetic field is a distinguishing feature of the new system from all previous variants of mass spectrometers.

Card 1/1

DAYON, M.I.

AUTHOR: Dayon, M.I.

56-5-16/46

TITLE: Electron Spectrum at 3200 m Above Sea Level (Spektr elektronov na vysote 3200 m nad urovnem morya)

PERIODICAL: Zhurnal Eksperim. i Teoret. Fiziki, 1957, Vol 33, Nr 5, pp. 1166-1174 (USSR)

ABSTRACT: For the determination of the electron spectrum resulting from cosmic radiation an "Alikhanyan-Alikhanov" type mass spectrometer was used which was connected with a Wilson chamber. A number of lead plates was in the Wilson chamber. The following may be said about the results obtained:

a) The integral electron spectrum within the energy domain $4 \cdot 10^8 \leq E < 2 \cdot 10^9$ eV at 3200 m above sea level can be represented by

$$N(p) = N_0/p^{1.55 \pm 0.20}$$

b) The intensity of the vertical electron current with a momentum $p \geq 4 \cdot 10^8$ eV/c is equal to $0.41 \cdot 10^{-3}$ cm⁻² sterad⁻¹ s⁻¹. This is about 3% of the μ meson current if the mesons have a momentum of

Card 1/2

Electron Spectrum at 3200 m Above Sea Level

56-5-16/46

$p > 370 \text{ MeV/c}$.

c) At momenta $p \geq 4 \cdot 10^8 \text{ eV/c}$ the number of the electrons (359 ± 19) in all momentum domains is about equal to those of the positron (330 ± 18) .

d) The experimental data on the penetrability of fast electrons ($p \geq 4 \cdot 10^8 \text{ eV/c}$) are in fairly good agreement with the corresponding computations obtained by Ivanenko on the basis of cascade curves. There are 4 figures, 6 tables, and 19 references, 6 of which are Slavic.

ASSOCIATION: Physics Institute imeni P.N.Lebedev AN USSR (Fizicheskiy institut im. P.N.Lebedeva AN SSSR)

SUBMITTED: June 7, 1957

AVAILABLE: Library of Congress

Card 2/2

Dayon, M. I.

AUTHOR: Dayon, M.I.

56-5-17/46

TITLE: Experimental Data on the Cascade Multiplication of Electrons in Lead (Eksperimental'nyye dannyye o kaskadnom razmozhenii elektronov v svintse)

PERIODICAL: Zhurnal Eksperim. i Teoret. Fiziki, 1957, Vol. 33, Nr 5, pp. 1175-1178 (USSR)

ABSTRACT: By means of a mass spectrometer of the Alikhanyan-Alikhanov type, which was coupled with a multiplate Wilson chamber, cascade multiplications of the electrons were measured. The Wilson chamber contained lead plates of a thickness of 7 mm and was connected with a godoscopic system.

The experimentally found values for the number of secondary electrons in depths of 1.4; 2.8 and 4.2 t-units in Pb are shown in curve representation. The energy of the primary electrons varied between 200 and 500 MeV.

The experimentally found points at energies of the primary electrons up to ~ 200 MeV agree fairly well with those found theoretically. With increasing energy experimental data are lower by 25 to 30%. An exact explanation of this discrepancy has not

Card 1/2

Experimental Data on the Cascade Multiplication of Electrons in Lead ^{56-5-17/46}

yet been found. There are 2 figures, 1 table, and 4 Slavic references.

ASSOCIATION: Physics Institute imeni P.N.Lebedev AN USSR (Fizicheskii institut im. P.N.Lebedeva AN SSSR)

SUBMITTED: June 7, 1957

AVAILABLE: Library of Congress

Card 2/2

ARUTYUNYAN, F.R.; DAYON, M.I.; TER-SAAKYAN, A.A.

Determining the mass of charged particles by their scattering and
residual run in multiplate Wilson cloud chambers. Izv. AN Arm. SSR.
fiz.-mat. nauk 11 no.2:71-77 '58. (MIRA 11:6)
(Cloud chambers) (Particles, Elementary)

Daiyon, M. I.

μ -MESON SPECTRUM AT A DEPTH OF ~ 40 M. WATER EQUIVALENT.

MEASUREMENT OF THE MASS OF COSMIC RADIATION PARTICLES
BELOW THE SURFACE OF THE EARTH

M. I. Daiyon, L. I. Potapov

The magnetic spectrometer method was used to obtain a momentum spectrum of μ -mesons at a depth of approximately ~ 40 m. w.e. in the momentum range of $4 \cdot 10^8$ $\sim 5 \cdot 10^{10}$ ev/s.

This spectrum is compared with the Caro spectrum and other spectra measured at sea level.

The mass value for 370 particles stopped in the filter (interval of ranges - 4 cm Pb $< R < 16$ cm. Pb) determined by momentum and range.

The values obtained agree with the value of the mass of the μ -meson (γ - an μ -mesons are not resolved by the instrument).

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AUTHORS: Dayon, M. I., Potapov, L. I.

TITLE: The μ -Meson Spectrum in Underground at a Depth Corresponding to ~ 40 m of Water (Spektr μ mezonov pod zemley na glubine, ekvivalentnoy ~ 40 m vody)

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ABSTRACT: The momentum spectra of μ -mesons at sea level and on mountains have already been investigated by a number of authors (Refs 1-6), among others by Alikhanyan and Alikhanov. Underground, the nucleon component is rapidly absorbed and at a depth of 8-10 m the penetrating component consists of muons. It was the aim of the authors to investigate their spectrum in a depth of 40 m equivalent of water. The scheme of the experimental arrangement is shown by figure 1 and is described in short. The data concerning the counters used are clearly given by table 1. Among the total of 12 rows some hundreds of counters were arranged. The radiotechnical part of the system consisted essentially of a coincidence block and a hodoscope of the GK-7 type. The numerous measuring results are shown in tables and diagrams. Thus, table 2 gives the obtained σ -values at

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H = 3300 and 6300 Oe, table 3 shows the values of the light power of the apparatus for $n = 1, 2, 3$. The spectra constructed in consideration of light power were produced on the basis of the assumption that $n = 2$. In the momentum range

$p \geq 2.10^9$ ev/c the muon spectrum may be approximated by the formula $N(p)dp = N_0 dp / (p + p_0)^\gamma$, where $\gamma = 2.78 \pm 0.23$ and

$p_0 = 9.8$ BeV/c (Fig 5). This formula can also be used for the

roughly approximated description of the spectrum in the extended range at $p \leq 2.10^8$ ev/c. The spectrum obtained permits the conclusion that the so-called anomalous muon scattering observed in a number of underground investigations can certainly not be caused by an underestimation of the number of slow muons. The authors finally thank A. I. Alikhanyan for his help, advice, and discussions, and V. Kh. Volynskiy and V. Krugovyykh for their assistance rendered in the course of the experimental part of the work. They further thank S. N. Vernov, N. L. Grigorov and G. B. Khristiansen for making it possible to carry out work at the podzemnaya laboratoriya

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Moskovskogo gosudarstvennogo universiteta (Underground Laboratory

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The μ -Meson Spectrum in Underground at a Depth Corresponding to ~40 m of Water
of Moscow State University). There are 6 figures, 3 tables,
and 15 references, 6 of which are Soviet.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva Akademii nauk SSSR
(Physics Institute imeni P. N. Lebedev of the Academy of
Sciences, USSR)

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